ATTACHMENT 2.1

BLACK RANGE
MINERALS

Detailed Description of the Location and Setting of the AMT Unit

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Detailed Description of the Location and Setting of the AMT Unit

This attachment is provided to respond to the Colorado Department of Public Health and Environment's (CDPHE) letter to Black Range Minerals of 13 August 2016 in which the CDPHE requested that Black Range Minerals provide:

2. Detailed description of the following items:
2.1 The location and setting of the AMT unit:

- *Will the AMT unit always be located at mines sites? What will be the setting of the AMT unit at a mine?*

BRM is focused on incorporating the first AMT system into the mine plan of the Sunday Mine Complex (SMC) located on a property block containing existing surface and underground infrastructure. A regional map of the SMC location is provided as Figure 1.

Figure 1: Regional Map of the Sunday Mine Complex (SMC), located in the Uravan Mineral Belt

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The SMC consists of five mine sites (the Carnation Mine, the St. Jude Mine, the Sunday Mine, the Topaz Mine, and the West Sunday Mine) located on a single contiguous mining claims block located in west San Miguel County, Colorado (see Figure 2). Each of the five mines is currently permitted with the Colorado Division of Reclamation Mining and Safety (DRMS) and controlled by Pinon Ridge Mining, LLC (PRM), a sister company to BRM. It is understood that, upon determination of AMT regulation, PRM will be required to submit technical revisions for each DRMS permit prior to beginning any AMT operations.

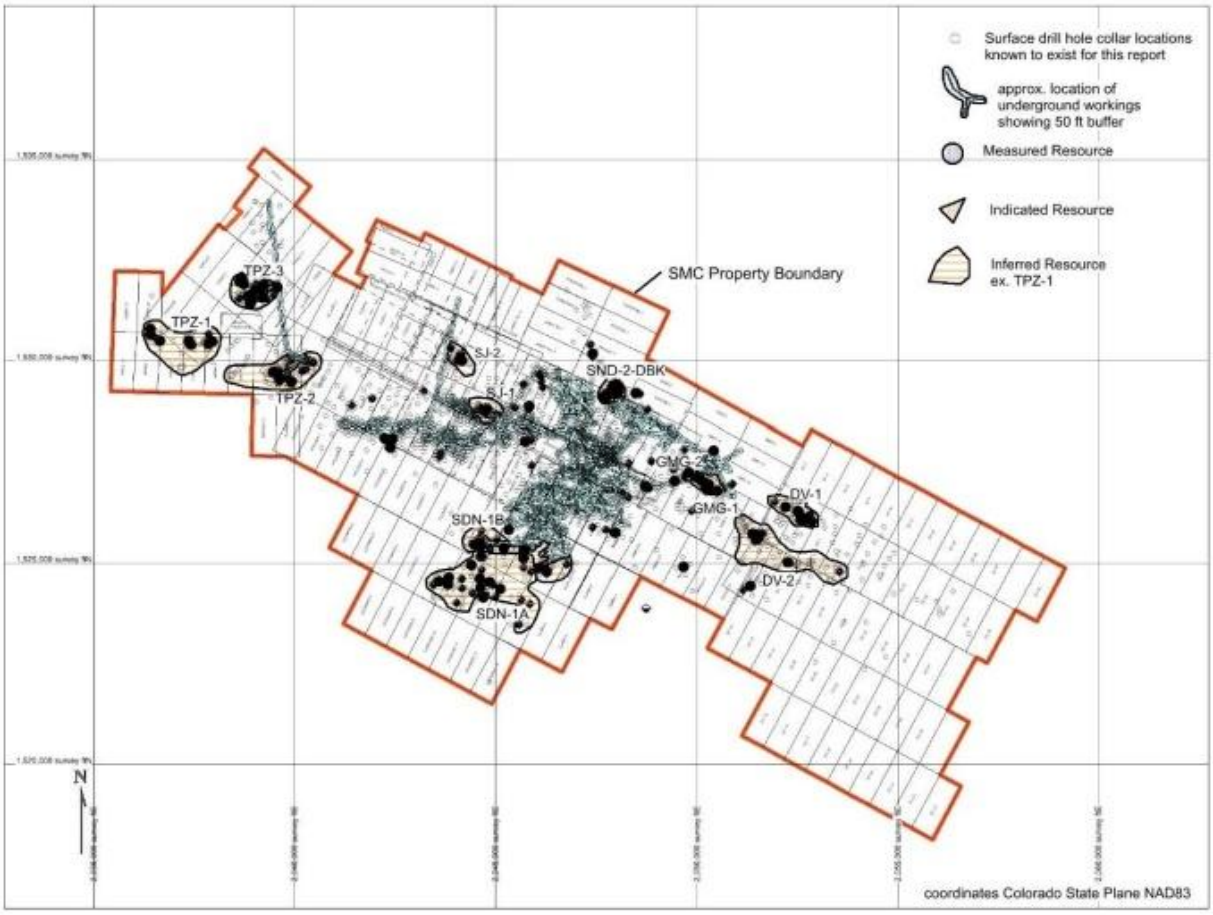

Figure 2: Map of the Sunday Mine Complex (SMC) Located on a Contiguous Claims Block

The existing infrastructure of the SMC allows for a single AMT location to service mine production startup. Existing mined cavities at the SMC can approach dimensions of up to 25 meters wide by 35 meters long by 15 meters tall and this volume of space is considered to be adequate for the basic design of the AMT system and all of its required ancillary components (see Figure 3).

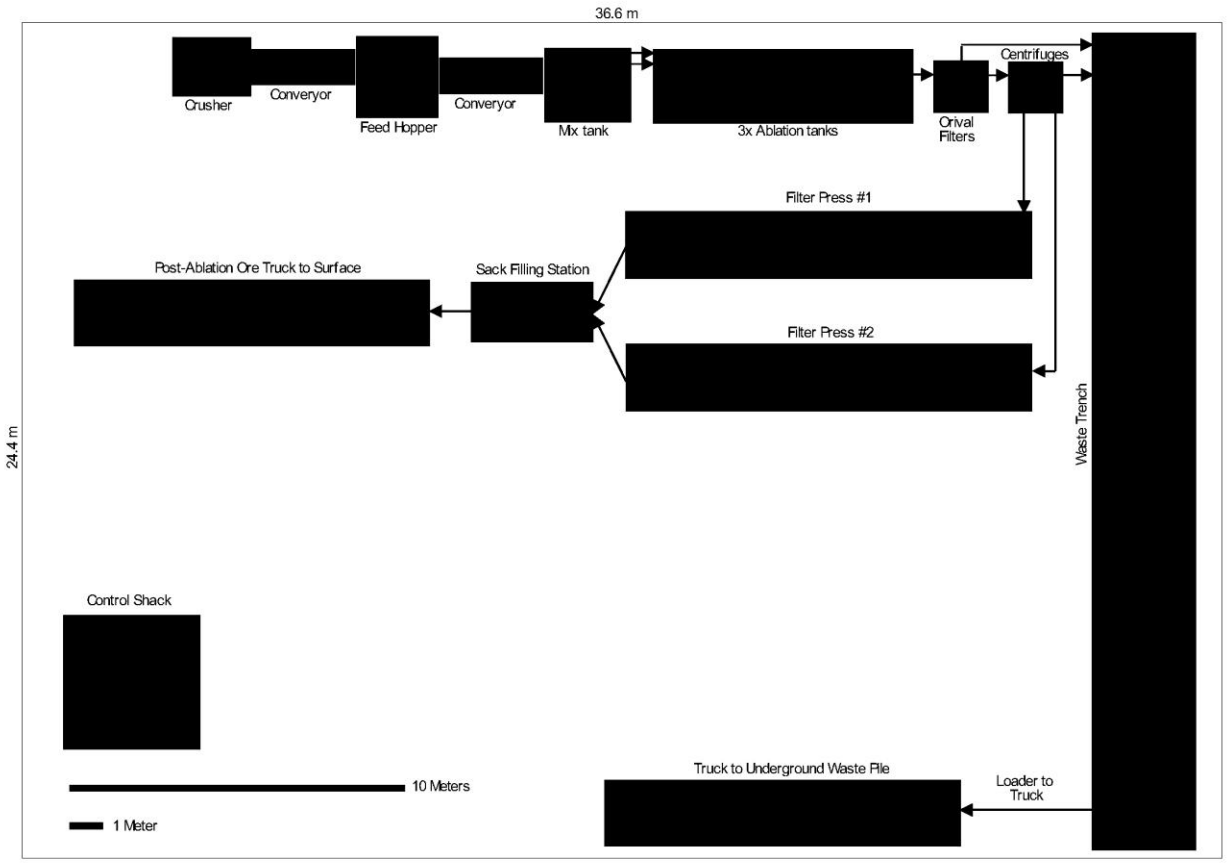

Figure 3: Basic Design of AMT (Mix tank and 3x Ablation tanks) and Ancillary System Components (Crushing and Conveying and Feeding, Filters, Centrifuges and Transport Preparation)

- *Does Black Range Minerals anticipate building a new AMT unit at each mine with an AMT operation?*

BRM anticipates beginning AMT operations at the SMC with a single AMT system and its ancillary components. As the operation expands and mining production scales up, it is anticipated that additional AMT systems become incorporated to the SMC mine plan to match production rates.

- *Please provide a detailed description of the anticipated commercial-scale AMT unit.*

The largest single AMT system currently planned will be capable of material throughputs on the order of 20 tons/hour (dry equivalent) run of mine (ROM) material. Dependent upon expansion of the SMC's operations plan, multiple AMT systems may be incorporated to match production requirements. For purposes of concise discussion, please note that the AMT system is made up of only an AMT mix tank module and subsequent AMT impact modules. Ancillary components to the AMT system include crushers, conveyors, material feeders, separators, filters, and product packagers.

Each AMT system is comprised two types of cubic AMT modules. Rough dimensions of each cubic AMT module is 2.44 meters cubed. Each AMT module houses a slurry tank of a volume of a few hundred gallons (exact volume yet to be determined) and at least one pump (dependent upon module type) for slurry flow control.

The AMT mix tank module is the first in-line module of an AMT system and is designated to handle both a stream of incoming ROM and water at an appropriate rate to achieve a constant stream of ~20% solids and 80% water (20% slurry) by mass. The AMT mix tank module also pumps the newly mixed slurry stream onto the next in-line AMT module at the appropriate controlled and adjustable rate. There are no AMT nozzles or AMT impacts on the AMT mix tank module.

Following the AMT mix tank module are the AMT impact modules (number dependent upon ROM characteristics). Each AMT impact module will be identical to one another and be designed to incorporate the AMT impact zone where disassociation occurs.

Within each AMT impact module, a disassociation impact is achieved utilizing a pump which directs the flow of the ~20% slurry mixture through opposing nozzles. The opposing slurry streams impact one another and collisions between the sandstone particles and fragments within each stream result in a disassociation of fine grained, inter-grannular, mineralized material from coarser grained and mineral-barren sand grains.

The AMT impact modules are equipped with two pumps; one of a larger volume and flow capacity to ensure impact circulation and one of a smaller volume and flow capacity to transfer slurry to the next in-line module or subsequent ancillary component to the AMT system.

Pumped directly from the AMT mix tank module, the 20 % slurry feeds into the first in-line AMT impact module and, due to tank baffling, is initially entrained into the impact circulation pump's flow which directs the slurry through a set of nozzles to the disassociation impact. Impacts occur above the AMT impact module's tank contents at atmospheric pressure, allowing for the post-impact slurry to fall back into the underlying tank from which it just came. For each AMT impact module, after the first collision, the slurry is entrained into one of two pump streams, either re-circulating back through the impact circulation pump's flow, or becoming transported on to the next AMT impact module or ancillary system component. Current AMT system design at the SMC includes three AMT impact modules, where the same slurry flow processes occur. For further discussion regarding disassociation please see Attachment 2.3 of this transmittal package.

For the entirety of a slurry's duration within the AMT mix tank and impact modules, the slurry remains a constant 20% solids to 80% water mixture. The primary difference from the ROM solids pre AMT and the solids post AMT is that the fragments and particles of sandstone have been undone from one another via the disassociation impact. Upon leaving the final AMT impact module, the fluid stream is a disassociated 20 % solids and 80 % water, by mass, slurry. This stream is pumped into the ancillary system component referred to as post AMT separation.

The SMC plan includes an AMT mix tank module as well as three AMT modules. The anticipated design and incorporation of a 20 ton/hour AMT system at the SMC is based on and scaled off of an existing 5 ton/hour AMT system's design principals.

Each of the AMT mix tank and impact modules control slurry flows via adjustable valves, flow meters and pressure gauges, adjustable pump motors, and load cell mass sensors. The AMT modules are interconnected via industrial slurry pumps, piping and hose, and adjustable valves.

Additional non-AMT but ancillary components to the AMT system include a pre AMT crusher, pre AMT material conveyors and feeders, post AMT separators, post AMT filters, and post AMT product packagers (see Figure 3). Additional discussion on ancillary components to the AMT system is included in Attachments 2.2 and 2.3 of this transmittal package